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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/763,919

01/22/2004

Kil Jae Ahn

11036-061-999

7853

24341

7590

10/30/2006

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EXAMINER

CREPEAU, JONATHAN

ART UNIT

PAPER NUMBER

1745

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/763,919

Applicant(s)

AHN, KIL JAE

Examiner

Jonathan S. Crepeau

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 1/22/04.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1164646. The reference teaches a vehicle battery cover having a layered structure comprising a radiation-insulation member (14) comprising aluminum foil, a convection insulation member (16) comprising plastic or a foam, and a conduction insulation member (18) comprising a nonwoven material (see [0018-0020]). The nonwoven material also inherently functions as a convection insulation member, as recited in instant claim 2.

The reference does not expressly teach that the conduction insulation layer is located in between the convection layer and radiation layer, as recited in claim 1, or that the nonwoven material contains an adhesive as recited in claim 2.

However, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the claimed order of the layers is considered to represent a mere rearrangement of the layers of EP '646. Generally, such a rearrangement of parts is not considered to distinguish over a reference unless it significantly changes the function of the device. See MPEP 2144.04. In this case, it is submitted that the claimed layer order and

the order of EP '646 would operate in substantially the same manner. It is further noted that the radiation layer of EP '646 is capable of being used as the "outermost" layer of the battery cover as recited in claim 1.

Regarding the recitation of an adhesive in claim 2, it would be obvious to use an adhesive in the nonwoven material of EP '646 in order to bond the fibers to each other and to bond the nonwoven layer to the middle layer. As such, this limitation is not considered to distinguish over the reference.

3. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1164646 in view of Alderman (U.S. Pre-Grant Publication No. 2003/0167719).

As stated above, EP '646 teaches a vehicle battery cover having a layered structure comprising a radiation-insulation member (14) comprising aluminum foil, a convection insulation member (16) comprising plastic or a foam, and a conduction insulation member (18) comprising a nonwoven material (see [0018-0020]). The nonwoven material also inherently functions as a convection insulation member, as recited in instant claim 2.

EP '646 does not expressly teach that one of the layers comprises porous glass fiber, as recited in claims 3 and 6, or that a conduction layer is present between the radiation layer and the convection (nonwoven) layer, as recited in claim 1.

In [0013], Alderman teaches an insulating blanket comprising a convection or conduction insulation member comprising a glass fiber layer and a further radiant heat insulation layer.

Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated to use glass fiber as the conduction or convection layer of EP '646. In [0004], Alderman teaches that "[g]lass is a good heat insulator and the glass fibers trap a substantial amount of air between them to form a multitude of dead air spaces. This combination of glass fibers and trapped air provide insulation against convection and conduction heat transfer." As such, the artisan would be motivated to use glass fiber as the conduction or convection layer of EP '646. Accordingly, substituting the glass fibers for the middle (convection) layer of EP '646, an ordered structure having an aluminum (radiation) layer, a glass fiber (conduction) layer, and a nonwoven (convection) layer is produced, which corresponds to the order of layers recited in claims 1 and 6.

Regarding claim 2, this subject matter is considered to be obvious to the skilled artisan for the reasons stated above.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

Art Unit: 1745

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan, can be reached at (571) 272-1292. The phone number for the organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Crepeau
Primary Examiner
Art Unit 1745
October 26, 2006